

CLAIMS:

1. A process for marking a flexible plastic material using a laser, which process comprises the steps: applying to a surface of a substrate comprising said flexible plastic material in one or more layers an ink in association with a laser sensitive material; drying the ink; exposing portions of the ink to laser radiation at a wavelength to which said laser sensitive material is sensitive so that laser radiation absorbed by the laser sensitive material heats and removes thermally the ink or causes the ink to change colour, so as to cause markings to appear on the exposed portions.
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2. A process according to Claim 1, in which said laser sensitive material is applied to the substrate and then a layer of said ink is applied over the laser sensitive material.
- 10 3. A process according to Claim 1, in which said ink contains said laser sensitive material.
4. A process according to any one of Claims 1 to 3, in which heating removes the ink.
5. A process for marking a flexible plastic material using a laser, which process comprises the steps: applying to a surface of a substrate comprising said flexible plastic material a laser sensitive material which is or is associated with a material that generates gas on heating; coating the
15 laser sensitive material with a gas-impermeable layer; exposing portions of the laser sensitive material to laser radiation at a wavelength to which said laser sensitive material is sensitive so that laser radiation absorbed by the laser sensitive material heats and causes gas to be generated, so as to form raised markings to appear on the exposed portions.
6. A process according to any one of Claims 1 to 5, in which said laser is a CO₂ laser.
- 20 7. A process according to Claim 6, in which said laser sensitive material is mica, metal oxide-coated mica particles, aluminium powder, carbon black, kaolin or another silicate, titanium dioxide or calcium carbonate.
8. A process according to any one of Claims 1 to 5, in which said laser is an Nd:YAG laser.
9. A process according to Claim 8, in which said laser sensitive material is mica, metal
25 oxide-coated mica particles, aluminium powder, carbon black, titanium dioxide or calcium carbonate.